

**Showing Current Law as Amended by H.R. 6235, Harmful Algal Bloom and Hypoxia
Research and Control Amendments Act of 2023**

[new text highlighted in yellow; text to be deleted bracketed and highlighted in blue]

**THE HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL
ACT OF 1998**

SEC 603. Assessments

(a) Establishment of [Inter-Agency Task Force] Interagency Working Group

The President, through the Committee on Environment and Natural Resources of the National Science and Technology Council, shall establish [an Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia.] an Interagency Working Group on Harmful Algal Blooms and Hypoxia (hereafter referred to as the ‘Task Force’). The Task Force shall consist of a representative from—

- (1) the Department of Commerce (who shall serve as Chairman of the Task Force);
- (2) the Environmental Protection Agency;
- (3) the Department of Agriculture;
- (4) the Department of the Interior;
- (5) the Department of the Navy;
- (6) the Department of Health and Human Services;
- (7) the National Science Foundation;
- (8) the National Aeronautics and Space Administration;
- (9) the Food and Drug Administration;
- (10) the Office of Science and Technology Policy;
- (11) the Council on Environmental Quality;
- (12) the Centers for Disease Control and Prevention;
- (13) the Army Corps of Engineers; and
- (14) other Federal agencies as the President considers appropriate.

[(b) Assessment of harmful algal blooms]

(1) Not later than 12 months after November 13, 1998, the Task Force, in cooperation with the coastal States, Indian tribes, and local governments, industry (including agricultural organizations), academic institutions, and non-governmental organizations with expertise in coastal zone management, shall complete and submit to the Congress an assessment which examines the ecological and economic consequences of harmful algal blooms, alternatives for reducing, mitigating, and controlling harmful algal blooms, and the social and economic costs and benefits of such alternatives.

(2) The assessment shall—

(A) identify alternatives for preventing unnecessary duplication of effort among Federal agencies and departments with respect to harmful algal blooms; and

(B) provide for Federal cooperation and coordination with and assistance to the coastal States, Indian tribes, and local governments in the prevention, reduction, management, mitigation, and control of harmful algal blooms and their environmental and public health impacts.]

[(c) Assessment of hypoxia]

(1) Not later than 12 months after November 13, 1998, the Task Force, in cooperation with the States, Indian tribes, local governments, industry, agricultural, academic institutions, and nongovernmental organizations with expertise in watershed and coastal zone management, shall complete and submit to the Congress an assessment which examines the ecological and economic consequences of hypoxia in United States coastal waters, alternatives for reducing, mitigating, and controlling hypoxia, and the social and economic costs and benefits of such alternatives.

(2) The assessment shall—

(A) establish needs, priorities, and guidelines for a peer-reviewed, inter-agency research program on the causes, characteristics, and impacts of hypoxia;

(B) identify alternatives for preventing unnecessary duplication of effort among Federal agencies and departments with respect to hypoxia; and

(C) provide for Federal cooperation and coordination with and assistance to the States, Indian tribes, and local governments in the prevention, reduction, management, mitigation, and control of hypoxia and its environmental impacts.]

[(d) Report to Congress on harmful algal bloom impacts]

(1) Development

Not later than 12 months after December 10, 2004, the President, in consultation with the chief executive officers of the States, shall develop and submit to the Congress a report that describes and evaluates the effectiveness of measures described in paragraph (2) that may be utilized to protect environmental and public health from impacts of harmful algal blooms. In developing the report, the President shall consult with the Task Force, the coastal States, Indian tribes, local governments, appropriate industries (including fisheries, agriculture, and fertilizer), academic institutions, and nongovernmental organizations with expertise in coastal zone science and management, and also consider the scientific assessments developed under this Act.

(2) Requirements

The report shall—

(A) review techniques for prediction of the onset, course, and impacts of harmful algal blooms including evaluation of their accuracy and utility in protecting environmental and public health and provisions for their development;

(B) identify innovative research and development methods for the prevention, control, and mitigation of harmful algal blooms and provisions for their development; and

(C) include incentive-based partnership approaches regarding subparagraphs (A) and (B) where practicable.

(3) Publication and opportunity for comment

At least 90 days before submitting the report to the Congress, the President shall cause a summary of the proposed plan to be published in the Federal Register for a public comment period of not less than 60 days.

(4) Federal assistance

The Secretary of Commerce, in coordination with the Task Force and to the extent of funds available, shall provide for Federal cooperation with and assistance to the coastal States,

Indian tribes, and local governments regarding the measures described in paragraph (2), as requested.]

[(e) Local and regional scientific assessments]

(1) In general

The Secretary of Commerce, in coordination with the Task Force and appropriate State, Indian tribe, and local governments, to the extent of funds available, shall provide for local and regional scientific assessments of hypoxia and harmful algal blooms, as requested by States, Indian tribes, and local governments, or for affected areas as identified by the Secretary. If the Secretary receives multiple requests, the Secretary shall ensure, to the extent practicable, that assessments under this subsection cover geographically and ecologically diverse locations with significant ecological and economic impacts from hypoxia or harmful algal blooms. The Secretary shall establish a procedure for reviewing requests for local and regional assessments. The Secretary shall ensure, through consultation with Sea Grant Programs, that the findings of the assessments are communicated to the appropriate State, Indian tribe, and local governments, and to the general public.

(2) Purpose

Local and regional assessments shall examine—

(A) the causes and ecological consequences, and the economic cost, of hypoxia or harmful algal blooms in that area;

(B) potential methods to prevent, control, and mitigate hypoxia or harmful algal blooms in that area and the potential ecological and economic costs and benefits of such methods; and

(C) other topics the Task Force considers appropriate.]

[(f)] (b) Scientific assessments of hypoxia

(1) Not less than once every 5 years the Task Force shall complete and submit to the Congress a scientific assessment of hypoxia in United States [coastal waters including the Great Lakes] marine and freshwater systems. The first such assessment shall be completed not less than 24 months after December 10, 2004.

(2) The assessments under this subsection shall—

[(A) examine the causes and ecological consequences, and the economic costs, of hypoxia;]

(A) examine the causes and ecological consequences of low oxygen on marine and aquatic species in their natural environments, the social and economic costs of hypoxia, and the cultural impacts of hypoxia;

(B) examine the effect of other environmental stressors on hypoxia;

[(B)] (C) describe the potential ecological, social, and economic costs and benefits of possible policy and management actions for preventing, controlling, and mitigating hypoxia;

[(C)] (D) evaluate progress made by, and the needs of, Federal research programs on the causes, characteristics, and impacts of hypoxia, including recommendations of how to eliminate significant gaps in [hypoxia modeling and monitoring data] hypoxia modeling, forecasting, and monitoring and observation data; and

[(D)] (E) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on hypoxia.

[(g)] [(c) Scientific assessments of marine and freshwater harmful algal blooms

Not less than once every 5 years the Task Force shall complete and submit to Congress a scientific assessment of harmful algal blooms in United States coastal waters and freshwater systems. Each assessment shall examine both marine and freshwater harmful algal blooms, including those in the Great Lakes and upper reaches of estuaries, those in freshwater lakes and rivers, and those that originate in freshwater lakes or rivers and migrate to coastal waters.]

(c) ACTION STRATEGY AND SCIENTIFIC ASSESSMENT FOR MARINE AND FRESHWATER HARMFUL ALGAL BLOOMS.—

(1) Not less often than once every five years, the Task Force shall complete and submit to Congress an action strategy, including a scientific assessment, for harmful algal blooms in the United States (in this Act referred to as the ‘Action Strategy’). Each such Action Strategy, including scientific assessment, shall examine both marine and freshwater harmful algal blooms, including those in the Great Lakes and upper reaches of estuaries, those in freshwater lakes and rivers, and those that originate in freshwater lakes or rivers and migrate to coastal waters.

(2) Each Action Strategy under this subsection shall—

(A) examine the causes and ecological consequences, and the economic, social, and cultural impacts of harmful algal blooms;

(B) examine the effect of other environmental stressors on harmful algal blooms;

(C) examine potential methods to prevent, control, and mitigate harmful algal blooms and the potential ecological, social, cultural, and economic costs and benefits of such methods;

(D) identify priorities for research needed to advance techniques and technologies to detect, predict, monitor, respond to, and minimize the occurrence, duration, and severity of harmful algal blooms, including recommendations to eliminate significant gaps in harmful algal bloom forecasting, monitoring, and observation data;

(E) evaluate progress made by, and the needs of, Task Force activities and actions to prevent, control, and mitigate harmful algal blooms;

(F) identify ways to improve coordination and prevent unnecessary duplication of effort among Federal departments and agencies with respect to research on harmful algal blooms; and

(G) include regional chapters relating to the requirements described in this paragraph in order to highlight geographically and ecologically diverse locations with significant ecological, social, cultural, and economic impacts from harmful algal blooms.

[(h) National scientific research, development, demonstration, and technology transfer plan on reducing impacts from harmful algal blooms

(1) Not later than 12 months after December 10, 2004, the Task Force shall develop and submit to Congress a plan providing for a comprehensive and coordinated national research

program to develop and demonstrate prevention, control, and mitigation methods to reduce the impacts of harmful algal blooms on coastal ecosystems (including the Great Lakes), public health, and the economy.

(2) The plan shall—

(A) establish priorities and guidelines for a competitive, peer reviewed, merit based interagency research, development, demonstration, and technology transfer program on methods for the prevention, control, and mitigation of harmful algal blooms;

(B) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to the actions described in paragraph (1); and

(C) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities and those serving large proportions of Hispanics, Native Americans, Asian Pacific Americans, and other underrepresented populations.

(3) The Secretary of Commerce, in conjunction with other appropriate Federal agencies, shall establish a research, development, demonstration, and technology transfer program that meets the priorities and guidelines established under paragraph (2)(A). The Secretary shall ensure, through consultation with Sea Grant Programs, that the results and findings of the program are communicated to State, Indian tribe, and local governments, and to the general public.]

[(i) Report

Not later than 2 years after the date the Action Strategy is submitted under section 4003 of this title, the Under Secretary shall submit a report to Congress that describes—

(1) the proceedings of the annual Task Force meetings;

(2) the activities carried out under the Program, including the regional and subregional parts of the Action Strategy;

(3) the budget related to the activities under paragraph (2);

(4) the progress made on implementing the Action Strategy; and

(5) any need to revise or terminate research and activities under the Program.]

**SECTION 102 OF THE HARMFUL ALGAL BLOOM AND HYPOXIA AMENDMENTS
ACT OF 2004**

33 USC § 4001a. Consultation required

In developing the assessments, reports, and plans under the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, the Task Force shall consult with [the coastal] States, Indian tribes, and local governments, and appropriate industries (including fisheries, agriculture, and fertilizer), academic institutions, and nongovernmental organizations [with expertise in coastal zone science and management].

THE HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998

SECTION 603A. National harmful algal bloom and hypoxia program

(a) Establishment

Not later than 1 year after June 30, 2014, the Under Secretary, acting through the Task Force, shall maintain and enhance a national harmful algal bloom and hypoxia program, including-

(1) a statement of objectives, including understanding, detecting, [predicting,] monitoring, observing, forecasting, controlling, mitigating, and responding to marine and freshwater harmful algal bloom and hypoxia events; and

(2) the [comprehensive research plan and action strategy under section 603B] the Action Strategy, including scientific assessment, under section 603(c) of this title.

(b) Periodic revision

The Task Force shall periodically review and revise the Program, as necessary.

(c) Task Force functions

The Task Force shall-

(1) coordinate interagency review of the objectives and activities of the Program;

(2) expedite the interagency review process by ensuring timely review and dispersal of required reports and assessments under this chapter;

(3) support the implementation of the Action Strategy, including the coordination and integration of the research of all Federal programs, including [ocean and Great Lakes] marine, estuarine, and freshwater systems science and management programs and centers, that address the chemical, biological, and physical components of marine and freshwater harmful algal blooms and hypoxia;

(4) support the development of institutional mechanisms and financial instruments to further the objectives and activities of the Program;

(5) review the Program's distribution of Federal funding to address the objectives and activities of the Program while recognizing each agency is acting under its own independent mission and authority;

(6) promote the development of new technologies for predicting, monitoring, and mitigating harmful algal bloom and hypoxia conditions; and

(7) establish such interagency working groups as it considers necessary.

(d) Lead Federal agency

[Except as provided in subsection (h), the] The National Oceanic and Atmospheric Administration shall have primary responsibility for administering the Program.

(e) Program duties

In administering the Program, the Under Secretary shall-

(1) promote the Program, including to local and regional stakeholders through the establishment and maintenance of a publicly accessible Internet website that provides information as to Program activities completed under this section;

[(2) prepare work and spending plans for implementing the research and activities identified under the Action Strategy;]

(2) examine, in collaboration with State, local, and Tribal entities, including island communities, low-population rural communities, Indigenous communities, subsistence communities, fisheries, and recreation industries that are most dependent on coastal and water resources that may be impacted by marine and freshwater harmful algal blooms and hypoxia, the causes, ecological consequences, cultural impacts, and social and economic costs of harmful algal blooms and hypoxia;

[(3)] (3) administer peer-reviewed, merit-based, competitive grant funding-

(A) to maintain and enhance baseline monitoring programs established by the Program;

(B) to support the projects maintained and established by the Program;

(C) to address the research and management needs and priorities identified in the Action Strategy; and

(D) to accelerate the utilization of effective methods of intervention and mitigation to reduce the frequency, severity, and impacts of harmful algal bloom and hypoxia events;]

[(4)] (3) coordinate with, and work cooperatively to provide technical assistance [to, regional] to regional, State, tribal, and local government [agencies] entities, and regional coastal observing systems (as such term is defined in section 12330(6) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3602(6))) and programs that address marine and freshwater harmful algal blooms and hypoxia;

[(5)] (4) coordinate with the Secretary of State to support international efforts on marine and freshwater harmful algal bloom and hypoxia information sharing, research, prediction, mitigation, control, and response activities;

[(6)] (5) identify additional research, development, and demonstration needs and priorities relating to monitoring, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia, including methods and technologies to protect the ecosystems and communities affected by marine and freshwater harmful algal blooms and hypoxia;

(6) support sustained observations to provide State, local, and Tribal entities and others access to real-time or near real-time observation data for decision-making to protect human and ecological health and local economies;

(7) integrate, coordinate, and augment existing education and extension programs to improve public understanding and awareness of the causes, impacts, intervention, and mitigation efforts for marine and freshwater harmful algal blooms and hypoxia;

(8) facilitate and provide resources to train [State and local] State, local, and Tribal coastal and water resource managers in the methods and technologies for monitoring, preventing, controlling, and mitigating marine and freshwater harmful algal blooms and hypoxia;

(9) support regional efforts to control and mitigate outbreaks through-

(A) communication of the contents of the Action Strategy and maintenance of online data portals for other information about harmful algal blooms and hypoxia to State, [tribal] Tribal, and local stakeholders; and

(B) overseeing the development, review, and periodic updating of the Action Strategy;

(10) convene at least 1 meeting of the Task Force each year; and

(11) perform such other tasks as may be delegated by the Task Force.

[(f) National Oceanic and Atmospheric Administration activities]

The Under Secretary shall-

(1) maintain and enhance the existing competitive programs at the National Oceanic and Atmospheric Administration relating to harmful algal blooms and hypoxia;

(2) carry out marine and Great Lakes harmful algal bloom and hypoxia events response activities;

(3) develop and enhance, including with respect to infrastructure, which shall include unmanned systems, as necessary, critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts relevant to harmful algal blooms and hypoxia events;

(4) enhance communication and coordination among Federal agencies carrying out marine and freshwater harmful algal bloom and hypoxia activities and research;

(5) to the greatest extent practicable, leverage existing resources and expertise available from local research universities and institutions;

(6) increase the availability to appropriate public and private entities of-

(A) analytical facilities and technologies;

(B) operational forecasts; and

(C) reference and research materials;

(7) use cost effective methods in carrying out this Act; and

(8) develop contingency plans for the long-term monitoring of hypoxia.]

[(g) Cooperative efforts

The Under Secretary shall work cooperatively and avoid duplication of effort with other offices, centers, and programs within the National Oceanic and Atmospheric Administration, other agencies on the Task Force, and States, tribes, and nongovernmental organizations concerned with marine and freshwater issues to coordinate harmful algal bloom and hypoxia (and related) activities and research.]

(f) COOPERATIVE EFFORTS.—The Under Secretary shall work cooperatively with and avoid duplication of effort of other agencies on the Task Force, and with and of States, Indian tribes, and nongovernmental organizations concerned with marine and freshwater issues, and shall coordinate harmful algal bloom and hypoxia and related activities and research.

(g) FRESHWATER PROGRAM DUTIES.—The Administrator, in coordination with the Task Force, shall carry out the duties under subsection (e) for freshwater aspects of the Program.

[(h) Freshwater

With respect to the freshwater aspects of the Program, the Administrator, through the Task Force, shall carry out the duties otherwise assigned to the Under Secretary under this section, except the activities described in subsection (f).

(1) Participation

The Administrator's participation under this section shall include-

(A) research on the ecology and impacts of freshwater harmful algal blooms; and

(B) forecasting and monitoring of and event response to freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs.

(2) Nonduplication

The Administrator shall ensure that activities carried out under this chapter focus on new approaches to addressing freshwater harmful algal blooms and are not duplicative of existing research and development programs authorized by this chapter or any other law.]

(i) (h) Integrated Coastal and Ocean Observation System

The collection of monitoring and observation data under this chapter shall comply with all data standards and protocols developed pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.). Such data shall be made available through the system established under that Act.

SECTION 603B. Comprehensive research plan and action strategy

(a) In general

Not later than 1 year after June 30, 2014, the Under Secretary, through the Task Force, shall develop and submit to Congress a comprehensive research plan and action strategy to address marine and freshwater harmful algal blooms and hypoxia. The Action Strategy shall identify-

- (1) the specific activities to be carried out by the Program and the timeline for carrying out those activities;
- (2) the roles and responsibilities of each Federal agency in the Task Force in carrying out the activities under paragraph (1); and
- (3) the appropriate regions and subregions requiring specific research and activities to address harmful algal blooms and hypoxia.

(b) Regional focus

The regional and subregional parts of the Action Strategy shall identify-

- (1) regional priorities for ecological, economic, and social research on issues related to the impacts of harmful algal blooms and hypoxia;
- (2) research, development, and demonstration activities needed to develop and advance technologies and techniques for minimizing the occurrence of harmful algal blooms and hypoxia and improving capabilities to detect, predict, monitor, control, mitigate, respond to, and remediate harmful algal blooms and hypoxia;
- (3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including deployment of response technologies in a timely manner;
- (4) research and methods to address human health dimensions of harmful algal blooms and hypoxia;
- (5) mechanisms, including the potential costs and benefits of those mechanisms, to protect ecosystems that may be or have been affected by harmful algal bloom and hypoxia events;
- (6) mechanisms by which data, information, and products may be transferred between the Program and the State, tribal, and local governments and research entities;
- (7) communication and information dissemination methods that State, tribal, and local governments may undertake to educate and inform the public concerning harmful algal blooms and hypoxia; and
- (8) roles that Federal agencies may have to assist in the implementation of the Action Strategy, including efforts to support local and regional scientific assessments under section 4001(e) of this title.

(c) Utilizing available studies and information

In developing the Action Strategy, the Under Secretary shall utilize existing research, assessments, reports, and program activities, including-

- (1) those carried out under existing law; and
- (2) other relevant peer-reviewed and published sources.

(d) Development of the Action Strategy

In developing the Action Strategy, the Under Secretary shall, as appropriate-

(1) coordinate with-

(A) State coastal management and planning officials;

(B) tribal resource management officials; and

(C) water management and watershed officials from both coastal States and noncoastal States with water sources that drain into water bodies affected by harmful algal blooms and hypoxia; and

(2) consult with-

(A) public health officials;

(B) emergency management officials;

(C) science and technology development institutions;

(D) economists;

(E) industries and businesses affected by marine and freshwater harmful algal blooms and hypoxia;

(F) scientists with expertise concerning harmful algal blooms or hypoxia from academic or research institutions; and

(G) other stakeholders.

(e) Federal Register

The Under Secretary shall publish the Action Strategy in the Federal Register.

(f) Periodic revision

The Under Secretary, in coordination and consultation with the individuals and entities under subsection (d), shall periodically review and revise the Action Strategy prepared under this section, as necessary.]

**SEC. 603B. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ACTIVITIES.**

(a) IN GENERAL.—The Under Secretary shall—

(1) carry out marine, coastal, and Great Lakes harmful algal bloom and hypoxia events response activities;

(2) develop and enhance operational harmful algal bloom observing and forecasting programs, including operational observations and forecasting, monitoring, modeling, data management, and information dissemination;

(3) maintain and enhance the existing peer-reviewed, merit-based, competitive grant funding relating to harmful algal blooms and hypoxia to—

(A) maintain and enhance baseline monitoring programs established by the Program;

(B) support the projects maintained and established by the Program;

(C) address the research and management needs and priorities identified in the Action Strategy under section 603(c);

(D) accelerate the utilization of effective methods of intervention and mitigation to reduce the frequency, severity, and impacts of harmful algal bloom and hypoxia events;

(E) identify opportunities to improve monitoring of harmful algal bloom and hypoxia, with a particular focus on coastal waters that may affect fisheries, public health, or subsistence harvest;

(F) examine the effects of other environmental stressors on harmful algal blooms and hypoxia;

(G) assess the effects of multiple environmental stressors on living marine resources and coastal ecosystems; and

(H) evaluate adaptation and mitigation strategies to address the impacts of harmful algal blooms and hypoxia;

(4) enhance communication and coordination among Federal agencies carrying out marine and freshwater harmful algal bloom and hypoxia activities and research;

(5) to the greatest extent practicable, leverage existing resources and expertise available from local research universities and institutions; and

(6) use cost effective methods in carrying out this section.

(b) INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM.—The collection of monitoring and observing data under this section shall comply with all data standards and protocols developed pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.). Such data shall be made available through the system established under that Act.

SEC. 603C. ENVIRONMENTAL PROTECTION AGENCY ACTIVITIES.

The Administrator shall—

(1) carry out research on the ecology and human health impacts of freshwater harmful algal blooms;

(2) develop and maintain forecasting and monitoring of, and event response to, freshwater harmful algal blooms in lakes, reservoirs, rivers, and estuaries (including tributaries thereof);

(3) enhance communication and coordination among Federal agencies carrying out freshwater harmful algal bloom and hypoxia activities and research;

(4) to the greatest extent practicable, leverage existing resources and expertise available from local research universities and institutions; and

(5) use cost effective methods in carrying out this section.”.

SEC 604. Northern Gulf of Mexico hypoxia

(a) Initial progress reports

Beginning not later than 12 months after June 30, 2014, and biennially thereafter, the Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, shall submit a progress report to the appropriate congressional committees and the President that describes the progress made by activities directed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force and carried out or funded by the Environmental Protection Agency and other State and Federal partners toward attainment of the goals of the Gulf Hypoxia Action Plan 2008.

(b) Contents

Each report required under this section shall—

- (1) assess the progress made toward nutrient load reductions, the response of the hypoxic zone and water quality throughout the Mississippi/Atchafalaya River Basin, and the economic and social effects;
- (2) evaluate lessons learned; and
- (3) recommend appropriate actions to continue to implement or, if necessary, revise the strategy set forth in the Gulf Hypoxia Action Plan 2008.

SEC 605. South Florida harmful algal blooms and hypoxia

(a) South Florida

In this section, the term "South Florida" means—

- (1) all lands and waters within the administrative boundaries of the South Florida Water Management District;
- (2) regional coastal waters, including Biscayne Bay, the Caloosahatchee Estuary, Florida Bay, Indian River Lagoon, and St. Lucie River Estuary; and
- (3) the Florida Reef Tract.

(b) Integrated assessment

(1) Interim integrated assessment

Not later than 540 days after June 16, 2022, the Task Force, in accordance with the authority under section 4001 of this title, shall complete and submit to Congress and the President an interim integrated assessment.

(2) Finalized integrated assessment

Not later than 3 years after June 16, 2022, the Task Force shall finalize, and submit to Congress and the President, the interim integrated assessment required by paragraph (1).

(3) Contents of integrated assessment

The integrated assessment required by paragraphs (1) and (2) shall examine the causes, consequences, and potential approaches to reduce harmful algal blooms and hypoxia in South Florida, and the status of, and gaps within, current harmful algal bloom and hypoxia research,

monitoring, management, prevention, response, and control activities that directly affect the region by—

- (A) Federal agencies;
- (B) State agencies;
- (C) regional research consortia;
- (D) academia;
- (E) private industry;
- (F) nongovernmental organizations; and
- (G) Indian tribes (as defined in section 5304 of title 25).

(c) Action plan

(1) In general

Not later than 3 years and 180 days after June 16, 2022, the Task Force shall develop and submit to Congress a plan, based on the integrated assessment under subsection (b), for reducing, mitigating, and controlling harmful algal blooms and hypoxia in South Florida.

(2) Contents

The plan submitted under paragraph (1) shall—

- (A) address the monitoring needs identified in the integrated assessment under subsection (b);
- (B) develop a timeline and budgetary requirements for deployment of future assets;
- (C) identify requirements for the development and verification of South Florida harmful algal bloom and hypoxia models, including—
 - (i) all assumptions built into the models; and
 - (ii) data quality methods used to ensure the best available data are utilized; and
- (D) propose a plan to implement a remote monitoring network and early warning system for alerting local communities in the region to harmful algal bloom risks that may impact human health.

(3) Requirements

In developing the action plan, the Task Force shall—

- (A) consult with the State of Florida, and affected local and tribal governments;
- (B) consult with representatives from regional academic, agricultural, industry, and other stakeholder groups;
- (C) ensure that the plan complements and does not duplicate activities conducted by other Federal or State agencies, including the South Florida Ecosystem Restoration Task Force;
- (D) identify critical research for reducing, mitigating, and controlling harmful algal bloom events and their effects;
- (E) evaluate cost-effective, incentive-based partnership approaches;
- (F) ensure that the plan is technically sound and cost-effective;
- (G) utilize existing research, assessments, reports, and program activities;
- (H) publish a summary of the proposed plan in the Federal Register at least 180 days prior to submitting the completed plan to Congress; and
- (I) after submitting the completed plan to Congress, provide biennial progress reports on the activities toward achieving the objectives of the plan.

SEC 606. Great Lakes hypoxia and harmful algal blooms

(a) Integrated assessment

Not later than 18 months after June 30, 2014, the Task Force, in accordance with the authority under section 4001 of this title, shall complete and submit to the Congress and the President an integrated assessment that examines the causes, consequences, and approaches to reduce hypoxia and harmful algal blooms in the Great Lakes, including the status of and gaps within current research, monitoring, management, prevention, response, and control activities by—

- (1) Federal agencies;
- (2) State agencies;
- (3) regional research consortia;
- (4) academia;
- (5) private industry; and
- (6) nongovernmental organizations.

(b) Plan

(1) In general

Not later than 2 years after June 30, 2014, the Task Force shall develop and submit to the Congress a plan, based on the integrated assessment under subsection (a), for reducing, mitigating, and controlling hypoxia and harmful algal blooms in the Great Lakes.

(2) Contents

The plan shall—

- (A) address the monitoring needs identified in the integrated assessment under subsection (a);
- (B) develop a timeline and budgetary requirements for deployment of future assets;
- (C) identify requirements for the development and verification of Great Lakes hypoxia and harmful algal bloom models, including—
 - (i) all assumptions built into the models; and
 - (ii) data quality methods used to ensure the best available data are utilized; and
- (D) describe efforts to improve the assessment of the impacts of hypoxia and harmful algal blooms by—
 - (i) characterizing current and past biological conditions in ecosystems affected by hypoxia and harmful algal blooms; and
 - (ii) quantifying effects, including economic effects, at the population and community levels.

(3) Requirements

In developing the plan, the Task Force shall—

- (A) coordinate with State and local governments;
- (B) consult with representatives from academic, agricultural, industry, and other stakeholder groups, including relevant Canadian agencies;
- (C) ensure that the plan complements and does not duplicate activities conducted by other Federal or State agencies;
- (D) identify critical research for reducing, mitigating, and controlling hypoxia events and their effects;
- (E) evaluate cost-effective, incentive-based partnership approaches;
- (F) ensure that the plan is technically sound and cost effective;

- (G) utilize existing research, assessments, reports, and program activities;
- (H) publish a summary of the proposed plan in the Federal Register at least 180 days prior to submitting the completed plan to Congress; and
- (I) after submitting the completed plan to Congress, provide biennial progress reports on the activities toward achieving the objectives of the plan.]

SEC. 606. NATIONAL HARMFUL ALGAL BLOOM OBSERVING NETWORK.

(a) **IN GENERAL.**—The Under Secretary, acting through the National Centers for Coastal Ocean Science (NCCOS) and the Integrated Ocean Observing System (IOOS) of the National Oceanic and Atmospheric Administration, shall establish a national network of harmful algal bloom observing systems for the monitoring, detection, and forecasting of harmful algal blooms by leveraging the capacity of IOOS regional associations, including through the incorporation of emerging technologies and new data integration methods, such as artificial intelligence.

(b) **COORDINATION.**—In carrying out subsection (a), the IOOS Program Office shall—

(1) coordinate with NCCOS regarding observations, data integration, and information dissemination; and

(2) establish a Harmful Algal Bloom Data Assembly Center to integrate, disseminate, and provide a central architecture to support ecological forecasting.

SEC 607. Protection of States' rights

(a) Nothing in this chapter shall be interpreted to adversely affect existing State regulatory or enforcement power which has been granted to any State through the Clean Water Act [33 U.S.C. 1251 et seq.] or Coastal Zone Management Act of 1972 [16 U.S.C. 1451 et seq.].

(b) Nothing in this chapter shall be interpreted to expand the regulatory or enforcement power of the Federal Government which has been delegated to any State through the Clean Water Act or Coastal Zone Management Act of 1972.

SEC 608. Effect on other Federal authority

(a) Authority preserved

Nothing in this chapter supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

(b) Regulatory authority

Nothing in this chapter may be construed as establishing new regulatory authority for any agency.

SEC 609. Definitions

In this chapter:

(1) Action Strategy

The term "Action Strategy" [means the comprehensive research plan and action strategy established under section 603B] means the action strategy, including scientific assessment, for marine and freshwater harmful algal blooms established under section 603(c) of this title.

(2) *Administrator*

The term "Administrator" means the Administrator of the Environmental Protection Agency.

[(3)] *Harmful algal bloom*

The term "harmful algal bloom" means marine and freshwater phytoplankton that proliferate to high concentrations, resulting in nuisance conditions or harmful impacts on marine and aquatic ecosystems, coastal communities, and human health through the production of toxic compounds or other biological, chemical, and physical impacts of the algae outbreak.]

(3) APPROPRIATE FEDERAL OFFICIAL.—The term ‘appropriate Federal official’ means—

(A) in the case of coastal hypoxia or harmful algal bloom event, including those in estuarine areas, the Under Secretary of Commerce for Oceans and Atmosphere; and

(B) in the case of a freshwater hypoxia or harmful algal bloom event, the Administrator of the Environmental Protection Agency, in consultation with the Under Secretary of Commerce for Oceans and Atmosphere.

(4) HARMFUL ALGAL BLOOM; HARMFUL ALGAL BLOOM AND HYPOXIA EVENT.—

(A) HARMFUL ALGAL BLOOM.—The term ‘harmful algal bloom’ means marine or freshwater algae or macroalgae, including Sargassum, that proliferate to high concentrations, resulting in nuisance conditions or harmful impacts on marine and freshwater ecosystems, communities, or human health through the production of toxic compounds or other biological, chemical, or physical impacts of the algae outbreak.

(B) HARMFUL ALGAL BLOOM AND HYPOXIA EVENT.—The term ‘harmful algal bloom and hypoxia event’ means the occurrence of a harmful algal bloom or hypoxia as a result of a natural, anthropogenic, or undetermined cause.

(5) HARMFUL ALGAL BLOOM OR HYPOXIA EVENT OF SIGNIFICANCE.—The term ‘event of significance’ means a harmful algal bloom or hypoxia event that has had or will likely have significant detrimental environmental, economic, social, subsistence use, or public health impacts.

[(4)] (6) *Hypoxia*

The term "hypoxia" means a condition where low dissolved oxygen in [aquatic] marine or freshwater systems causes stress or death to [resident] marine or freshwater organisms.

[(5)] (7) *Program*

The term "Program" means the national harmful algal bloom and hypoxia program established under section 4002 of this title.

(9 - 8) SUBSISTENCE USE.—The term ‘subsistence use’ means the customary and traditional use of fish, wildlife, or other freshwater, coastal, or marine resources by any individual or community to meet personal or family needs, including essential economic, nutritional, or cultural applications.

[(6)] (9) *State*

The term "State" means each of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, any other territory or possession of the United States, and any Indian tribe.

[(7)] (10) *Task Force*

The term "Task Force" means the [Inter-Agency Task Force] Interagency Working Group on Harmful Algal Blooms and Hypoxia under section 4001(a) of this title.

[(8)] (11) *Under Secretary*

The term "Under Secretary" means the Under Secretary of Commerce for Oceans and Atmosphere.

[(9)] *United States coastal waters*

The term "United States coastal waters" includes the Great Lakes.]

SEC 610. Authorization of appropriations

[(a)] *In general*

There is authorized to be appropriated to the Under Secretary to carry out sections 4002 and 4003 of this title \$20,500,000 for each of fiscal years 2014 through 2018, and \$20,500,000 for each of fiscal years 2019 through 2023.]

(a) IN GENERAL.—There is authorized to be appropriated to the Under Secretary to carry out this title \$34,600,000 for each of fiscal years 2024 through 2028.

(b) *Extramural research activities*

The Under Secretary shall ensure that a substantial portion of funds appropriated pursuant to subsection (a) that are used for research purposes are allocated to extramural research activities. For each fiscal year, the Under Secretary shall publish a list of all grant recipients and the amounts for all of the funds allocated for research purposes, specifying those allocated for extramural research activities.

(c) TRANSFER AUTHORITY.—The Under Secretary is authorized to make a direct non-expenditure transfer of funds authorized to be appropriated pursuant to subsection (a) to the head of any Federal department or agency, with the concurrence of such head, to carry out, as appropriate, relevant provisions of this title.

SEC. 611. NATIONAL LEVEL INCUBATOR PROGRAM.

(a) IN GENERAL.—The Under Secretary, in collaboration with research universities and institutions, shall establish a national level incubator program to increase the number of available control strategies and technologies relating to harmful algal blooms. Such incubator shall establish a framework for preliminary assessments of novel harmful algal bloom prevention,

mitigation, and control technologies in order to determine the potential for effectiveness and scalability.

(b) OPERATION.—The incubator under subsection (a) shall provide merit-based funding for harmful algal bloom control strategies and technologies that eliminate or reduce through biological, chemical, or physical means the levels of harmful algae and associated toxins.

(c) DATABASE.—The incubator under subsection (a) shall establish a database to—

(1) catalog the economic costs, feasibility, effectiveness, and scalability of both novel and established prevention, control, and mitigation measures; and

(2) clarify the licensing and permitting requirements regulating the application of such measures.

(d) PRIORITIZATION.—In carrying out the incubator under subsection (a), the Under Secretary shall prioritize proposed activities that would—

(1) protect key habitats for fish and wildlife;

(2) maintain biodiversity;

(3) protect public health;

(4) protect coastal resources of national, historical, and cultural significance; and

(5) benefit communities of color, low-income communities, Tribal or Indigenous communities, and rural communities.

SEC. 612. HARMFUL ALGAL BLOOM OR HYPOXIA EVENT OF SIGNIFICANCE.

(a) EVENT OF SIGNIFICANCE FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a fund to be known as the ‘Harmful Algal Bloom and Hypoxia Event of Significance Fund’ (in this section referred to as the ‘Fund’).

(2) DEPOSITS INTO FUND.—

(A) IN GENERAL.—There shall be deposited into the Fund the following:

(i) Amounts appropriated to the Fund.

(ii) Amounts transferred to the Fund under paragraph (3).

(iii) Amounts received by the United States in the form of gifts, devises, and bequests under paragraph (4).

(B) AVAILABILITY.—Amounts deposited into the Fund shall be available without fiscal year limitation.

(3) TRANSFER AUTHORITY.—Notwithstanding any other provision of law, from amounts appropriated to the National Oceanic and Atmospheric Administration, the Under Secretary may transfer up to \$2,000,000 to the Fund each fiscal year.

(4) ACCEPTANCE OF DONATIONS.—For purposes of carrying out this section, the Under Secretary may accept, solicit, receive, hold, administer, and use gifts, devises, and bequests without any further approval or administrative action.

(5) CONTRACT, GRANT, AND COOPERATIVE AGREEMENT AUTHORITY.—The Under Secretary may enter into agreements and grants with States, Indian tribes, or local governments, or other entities to pay for or reimburse costs incurred for the purposes of supporting the determination of and assessing the environmental, economic, social, subsistence use, and public health effects of a harmful algal bloom or hypoxia event of significance.

(6) STEERING COMMITTEE.—

(A) IN GENERAL.—Not later than 12 months after the date of the enactment of this section, the President, acting through the Under Secretary, shall establish a steering committee to assist in evaluating information and data submitted by eligible requesters under subsection (b)(1) in the event of a harmful algal bloom or hypoxia event of significance, in accordance with the considerations described in subsection (c)(3) and the Event of Significance Policy under subsection (c).

(B) MEMBERSHIP.—The steering committee established under this paragraph shall consist of individuals with knowledge and experience in aquatic or marine science, harmful algal bloom or hypoxia science, harmful algal bloom or hypoxia monitoring and forecasting, or harmful algal bloom or hypoxia prevention, mitigation, and control.

(C) CHARTER.—The Under Secretary shall develop and prescribe a charter for the steering committee established under this paragraph. Such charter shall reflect the full scope of the duties and activities of the steering committee.

(D) EXEMPTION.—Chapter 10 of title 5, United States Code, shall not apply to the steering committee established under this paragraph.

(7) AVAILABILITY OF FUNDS.—Upon the submission of a request for a harmful algal bloom or hypoxia event of significance determination under subsection (b), the appropriate Federal official is authorized to make sums, from funds appropriated to the Fund, available to the affected State, local, or Tribal government for the purposes of supporting the determination of

and assessing the environmental, economic, social, subsistence use, and public health effects of such event.

(b) REQUESTS AND DETERMINATIONS.—

(1) ELIGIBLE REQUESTERS.—Not later than two years after the beginning date of a harmful algal bloom or hypoxia event of significance, a request for a harmful algal bloom or hypoxia event of significance determination may be submitted to the appropriate Federal official, if the appropriate Federal official has not independently determined that such an event of significance has occurred, by any of the following:

(A) The Governor of an affected State.

(B) A leadership official of an affected Indian Tribe.

(C) The executive official of the District of Columbia or a territory or possession of the United States, including Puerto Rico, the Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and the Trust Territories of the Pacific Islands, and American Samoa, if affected.

(D) Any other comparable elected or politically appointed representative as determined by the Secretary, if affected.

(2) HARMFUL ALGAL BLOOM OR HYPOXIA EVENT OF SIGNIFICANCE DETERMINATION.—At the discretion of an appropriate Federal official, or at the request of an eligible requester under subsection(b)(1), an appropriate Federal official, in consultation with the Steering Committee and NOAA, shall determine whether a harmful algal bloom or hypoxia event is an event of significance.

(3) CONSIDERATIONS.—In making a determination under paragraph (2), the appropriate Federal official shall consider such factors as the following:

(A) The risk to public health and the potential severity of the detrimental environmental effects of the harmful algal bloom or hypoxia event at issue.

(B) The potential to spread, the potential economic, social, and subsistence use impacts of such event.

(C) The relative magnitude of impacts in relation to past occurrences of harmful algal blooms or hypoxia events that occur on a recurrent or annual basis.

(D) The geographic scope, including the potential to affect several municipalities, to affect more than one State, or to cross an international boundary.

(4) MITIGATION RELIEF.—Upon determination that a harmful algal bloom or hypoxia event of significance has occurred under paragraph (2), the appropriate Federal official is

authorized to make sums available, from funds appropriated for such purposes, to be used by the affected State, Tribal, or local government, or by the Under Secretary in cooperation with the affected State, local, or Tribal government, for the purposes of mitigating the environmental, economic, social, subsistence, and public health effects of such event.

(c) EVENT OF SIGNIFICANCE POLICY.—

(1) **PUBLICATION.**—Not later than six months after the date of the enactment of this section, the appropriate Federal officials shall publish Harmful Algal Bloom and Hypoxia Event of Significance policies for marine and coastal harmful algal bloom or hypoxia events, and for freshwater harmful algal bloom or hypoxia events, respectively. Each such policy shall include the following:

(A) Evaluation criteria and considerations to inform the determination of a harmful algal bloom or hypoxia event of significance under subsection (b)(3).

(B) The type of supplementary information that an affected State or other eligible requester described in subsection (b)(1) may provide to accompany a harmful algal bloom or hypoxia event of significance request.

(C) Process and criteria for prioritizing and evaluating multiple requests for a harmful algal bloom or hypoxia event of significance determination.

(2) **OPPORTUNITY FOR COMMENT.**—Not later than 120 days before publishing each final policy under paragraph (1), the appropriate Federal officials shall publish a draft of each such proposed policy in the Federal Register for a public comment period of not less than 60 days.

(d) LIMITATIONS.—

(1) **FEDERAL SHARE.**—Except as provided in paragraph (2), the Federal share of the cost of any activity carried out under this subsection may not exceed 75 percent of the total cost of such activity.

(2) **WAIVER.**—The appropriate Federal official may waive the non-Federal share requirements of this subsection, if the appropriate Federal official determines that—

(A) no reasonable means are available through which the recipient of the Federal share can meet the non-Federal share requirement;

(B) the probable benefit of 100 percent Federal financing outweighs the public interest in imposition of the non-Federal share; and

(C) assistance is directed to support the assessment or mitigation of a harmful algal bloom or hypoxia event of significance affecting an Indian Tribe or subsistence use.

(3) FISHERY FAILURES.—

(A) IN GENERAL.—Any analysis of a commercial fishery failure due to a fishery resource disaster caused by a harmful algal bloom or hypoxia event of significance shall be conducted pursuant to an appropriate request in accordance with the Magnusons-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

(B) FISHERY RESOURCE DISASTER RELIEF.—No funds available under this section may be used as part of response relief for a declared fishery resource disaster caused by a harmful algal bloom or hypoxia event, pursuant to the Magnusons-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).